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Enclosures to letter dated 09 November 2004 concerning European Patent Appln. No. PCT/NL2003/000881; -DSM IP Assets B.V.-; ref: 21429WO.

AMENDED SET OF CLAIMS

1. Soft and flexible surgical soft tissue mesh comprising polyethylene yarns, characterized in that the polyethylene yarns have a tensile strength of more than 1.0 GPa, determined as specified in ASTM D885M using a nominal gauge length of the fibre of 500 mm and a crosshead speed of 50%/min, consist of polyethylene with a relative viscosity of more than 5 dl/g as measured on a solution of polyethylene in decalin with a concentration of 0.05% at 135°C according to ASTM D 4020, and are sheath and core yams having a weight ratio between the sheath and the core of below 5:1, wherein the core is formed by filaments that show no or only little adhesion to each other and the sheath is a substantially non-porous layer.
2. Mesh according to claim 1, wherein the mesh is knitted.
3. Mesh according to claim 1 or claim 2, wherein the yarns have a weight ratio between the sheath and the core of below 3:1.
4. Mesh according to any of claims 1-3, wherein the yarn comprises a medical drug.
5. Method of producing a soft and flexible surgical soft tissue mesh comprising polyethylene yams, characterized in that yarns are applied that comprise filaments made by:
   a) spinning at least one filament from a solution of polyethylene with a relative viscosity of more than 5 dl/g, as measured on a solution of polyethylene in decalin with a concentration of 0.05% at 135°C according to ASTM D 4020, in a first solvent;
   b) cooling the filament obtained to form a solvent-containing gel filament;
   c) removing at least partly the solvent from the gel filament; and
   d) drawing the filament in at least one drawing step before, during or after removing solvent, to result in a tensile strength of more than 1.0 GPa, determined as specified in ASTM D885M using a nominal gauge length of the fibre of 500 mm and a crosshead speed of 50%/min;
   further comprising a step wherein the yarns are subjected to a heat treatment to form a modified yarn comprising a sheath and a core with a weight ratio between sheath and core of below 5:1, which sheath is substantially non-porous.
6. Method according to claim 5, wherein the weight ratio is below 3:1.
7. Method according to claim 5 or 6, wherein the heat treatment is performed in the presence of a second solvent for polyethylene.
8. Method according to any one claims 5-7, further comprising a step of incorporating a medical drug into the yarns by adding the drug to the first or the second solvent.
9. Method according to any one of claims 5-8, further comprising a step of heating the mesh under constant strain at a temperature between the melting temperature of the polyethylene and a temperature not more than 20 degrees below the melting temperature.